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Meeting Minutes Transmittal

324 REC/HLV CLOSURE PLAN
Unit Managers Meeting
337 Building, Mt. Hood Room
Richland, Washington

October 18, 1995
4:00 p.m. to 5:00 p.m.

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Unit Managers Meeting.

CR DeLannoy Date: 11/8/95
Charles R. DeLannoy, Unit Manager, RL

Not Present Date: _____
Daniel L. Duncan, RCRA Program Manager, EPA Region 10

Jeanne J. Wallace Date: 11/8/95
Jeanne J. Wallace, Unit Manager, Washington State Department of Ecology

324 REC/HLV Closure Plan, PNL Concurrence

M. H. Schlender Date: 11/10/95
Michael H. Schlender, Contractor Representative, PNL
376 8795



Purpose: Discuss Closure Process

Meeting Minutes are attached. The minutes are comprised of the following:

- Attachment 1 - Agenda
- Attachment 2 - Summary of Discussion and Commitments/Agreements
- Attachment 3 - Attendance List
- Attachment 4 - Action Items
- Attachment 5 - Summary of Plan for DQO Process for 324 REC/HLV
- Attachment 6 - High Level Vault Sump Verification Test

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C. R. DeLannoy	RL	A5-15
D. L. Duncan	EPA Region 10	HW-106
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D. K. Lutter	PNL	P7-79
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M. H. Schlender	PNL	P7-79
H. T. Tilden II	PNL	P7-79
M. C. Vargas	RL	K8-50
J. J. Wallace	Ecology	B5-18
P. J. Weaver	PNL	P7-35
RCRA Files	WHC	H6-24

ADMINISTRATIVE RECORD: 324 REC/HLV
 [Care of EPIC, WHC (H6-08)]

Washington State Department of Ecology Nuclear and Mixed Waste Hanford Files,
 P.O. Box 47600, Olympia, Washington 98504-7600

Environmental Protection Agency Region 10, Seattle, Washington 98101, Mail
 Stop HW-106 (Records Center)

Please send comments on distribution list to D.K. Lutter (P7-79), (509)
 376-5631.

Attachment 1

324 REC/HLV
Unit Managers Meeting
337 Building, Mt. Hood Room
Richland, Washington

October 18, 1995
4:00 p.m. to 5:00 p.m.

Agenda

1. Status of 324 REC/HLV Closure Plan (RL/PNL)
2. DQO Process for Closure Plan Sampling and Analysis (RL/PNL)
3. Impact of Potential Unresolved Closure Plan Issues on TPA Milestone Deliverable
 - Unit Boundary
 - Closure Standards
 - Closure Date
4. Ecology Authorization for equipment purchases and HLW Waste Transfers
 - Project Management Plan Comment Resolution
5. Discussion of Occurrence Report for Liquid Discovered in the HLW Sump (RL/PNL)
6. Status of Notice of Correction from WDOH (RL/PNL)
7. Status Action Items (Ecology/RL/PNL)
 - New Action Items
8. General Discussion (Ecology/RL/PNL)
9. Next Unit Managers Meeting (Ecology/RL/PNL)
 - Proposed November 8 date
 - Proposed topics

Attachment 2

**324 REC/HLV
Unit Managers Meeting
337 Building, Mt. Hood Room
Richland, Washington**

**October 18, 1995
4:00 p.m. to 5:00 p.m.**

Summary of Discussion and Commitments/Agreements**1. Status of 324 REC/HLV Closure Plan (RL/PNL)**

There were no UMM Minutes to review as this was the first UMM for this unit. However, previous discussions have taken place concerning the Radiochemical Engineering Cells (REC) and the High Level Vault (HLV). Jeanne Wallace (Ecology) requested that a summary be prepared of these meetings and discussions. ACTION: Terry Hosaka (PNL) will prepare this summary for presentation at the next UMM.

Mr. Hosaka reported that the draft closure plan is in concurrent review at RL and PNL. The comment period will end in late November, and comments will then be incorporated. The document is on schedule for a 12/31 delivery to Ecology.

2. DQO Process for Closure Plan Sampling and Analysis (RL/PNL)

Mr. Hosaka reported that the Data Quality Objectives (DQO) process for this unit is on a parallel path with the preparation of the closure plan. The DQO process will provide important input to the closure plan in terms of determination of closure standards, but at present RL/PNL plan to finalize the closure plan utilizing best available information whether or not the DQO process has been completed.

Ms. Wallace indicated that the milestone date is expected to be a submittal date, and Ecology does not expect that the document submitted will be the final, approved version. It was agreed that the RL/PNL submittal of the closure plan on December 31 will be a draft pending the addition of the outcomes from the DQO process, and that the submittal of the draft will meet the M-20-55 milestone commitment. Once the DQO results have been added to the document, the workshop process can commence to finalize the document.

Ms. Wallace also indicated that she has completed her review of the 324 Clean Closure Feasibility Study, and those comments will be forwarded to RL/PNL shortly.

3. Impact of Potential Unresolved Closure Plan Issues on TPA Milestone Deliverable

- Unit Boundary
- Closure Standards
- Closure Date

Mike Schlender (PNL) introduced Mitzi Miller of Environmental Quality Management, a firm which specializes in development of DQOs and currently serves the ERC Team in this capacity. Ms. Miller will be facilitating the DQO process for the 324 REC/HLV as well.

Due to the agreement reached during the previous discussion, it was agreed that the three bulleted issues can be resolved before or after the December 31 submittal. Ms. Wallace indicated that setting of the unit boundary might not be an appropriate topic for the DQO process. It was agreed that a separate meeting should be set up to discuss boundaries of the unit. ACTION: Mike Schlender will set up a meeting to determine where the boundaries of the unit should be.

Ms. Wallace felt the DQO process might be shortened by Ecology's being able to review the closure plan prior to beginning the DQO process. She also cautioned against trying to speed the schedule for review, as she has other priorities (325 HWTUs, procedural closures, and others) to deal with for the next two months.

Ms. Miller provided an outline of the process envisioned for the 324 REC/HLV DQO. This outline appears as Attachment 5 to these minutes.

4. Ecology Authorization for equipment purchases and HLV Waste Transfers

- Project Management Plan Comment Resolution

Mr. Schlender mentioned that RL/PNL would like to proceed with resolving Ecology's comments on the PMP. Ms. Wallace noted that this effort will need to be prioritized with the other tasks for which she is responsible. Per the action item agreed to in the Nonoperational Units UMM, Bob DeLannoy (RL), Mr. Schlender and Ms. Wallace are to meet to determine which efforts will be undertaken first.

5. Discussion of Occurrence Report for Liquid Discovered in the HLV Sump (RL/PNL)

Pat Weaver (PNL) discussed the circumstances surrounding the actuation of the sump alarm in the 324 HLV. The exact source of the liquid (approximately 15 gallons were detected) was not immediately determinable. Two suspected sources of the liquid were recent rainfall (since the HLV is below grade) and a decontamination project occurring above the HLV in the airlock area of the REC. It was possible to confirm (utilizing tank level monitoring) that the liquid did not come

from the tanks in the vault, and incoming water/steam lines were checked to confirm that no water was being introduced into the HLV.

A later test established that the liquid did probably come from the decontamination project in the airlock, and entered the HLV via pipe runs that extend from the airlock to the HLV. Mr. Weaver provided a written summary of this investigation, which is attached to these minutes as Attachment 6. The liquids are being allowed to evaporate; evaporation is fairly rapid due to the air flow through the cell. The air is exhausted through double HEPA filtration via the building's main stack. Controls are being put in place to prevent future water from infiltrating into the HLV.

6. Status of Notice of Correction from WDOH (RL/PNL)

Harold Tilden (PNL) reported that RL/PNL prepared a Notice of Construction for the Department of Health (Health) concerning B-Cell cleanout activities. The Notice of Correction had noted that some of these activities had not been covered by previous Health authorization. During the last week of September, Health approved the Notice of Construction. Ms. Wallace asked for a copy of the approved Notice of Construction. ACTION: Mr. Tilden will obtain a copy of the approved Notice of Construction and provide it to Ms. Wallace at the next UMM.

7. Status Action Items (Ecology/RL/PNL)

- New Action Items

- 10-18-95: 1 Prepare historical summary of 324 REC/HLV discussions with regulatory agencies. ACTION: Terry Hosaka (PNL)
- 10-18-95: 2 Meet with Jeanne Wallace (Ecology) to determine appropriate boundaries for the 324 REC/HLV unit. ACTION: Mike Schlender (PNL)
- 10-18-95: 3 Provide copy of the approved Notice of Construction for REC cleanout activities. ACTION: Harold Tilden (PNL)

8. General Discussion (Ecology/RL/PNL)

Mary Vargas (RL) suggested a discussion concerning the status of the Notice of Construction (NOC) filed by RL/WHC to store the REC/HLV cleanout materials in the PUREX Tunnels. Mr. Weaver noted that the NOC was filed utilizing very conservative emissions rate calculations. As a result, Health is reviewing it to determine if the NOC inadvertently triggers NESHAPs stack sampling requirements. Mr. DeLannoy noted that Hector Rodriguez of RL is working with Health to resolve this issue. RL/PNL also are assuring that hydrogen generation will not be an issue

for the rail package utilized to transport the 324 wastes to the PUREX tunnels. A licensing issue may also need to be addressed.

Some of the procedural issues regarding setting up the DQO process were discussed. It was generally agreed that a DQO workshop should be scheduled as near the time of the actual DQO process as possible. Also, a determination of who will participate in the DQO process and a listing of information needs should be completed.

9. Next Unit Managers Meeting (Ecology/RL/PNL)

The next meeting is scheduled for November 8 at the Ecology offices in Kennewick.

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Attachment 3

**324 REC/HLV
Unit Managers Meeting
337 Building, Mt. Hood Room
Richland, Washington**

**October 18, 1995
4:00 p.m. to 5:00 p.m.**

Attendance List

Attachment 4

324 REC/HLV
Unit Managers Meeting
337 Building, Mt. Hood Room
Richland, Washington

October 18, 1995
4:00 p.m. to 5:00 p.m.

Action Items

<u>Action Item #</u>	<u>Description</u>
10-18-95: 1	Prepare historical summary of 324 REC/HLV discussions with regulatory agencies. ACTION: Terry Hosaka (PNL)
10-18-95: 2	Meet with Jeanne Wallace (Ecology) to determine appropriate boundaries for the 324 REC/HLV unit. ACTION: Mike Schlender (PNL)
10-18-95: 3	Provide copy of the approved Notice of Construction for REC cleanout activities. ACTION: Harold Tilden (PNL)

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Attachment 5

**324 REC/HLV
Unit Managers Meeting
337 Building, Mt. Hood Room
Richland, Washington**

**October 18, 1995
4:00 p.m. to 5:00 p.m.**

Summary of Plan for DQO Process for 324 REC/HLV

KICK OFF MEETING
324 BUILDING CLOSURE
DQO PLANNING WORKSHOP

October 18, 1995

Mitzi Miller, Facilitator

Environmental Quality
Management

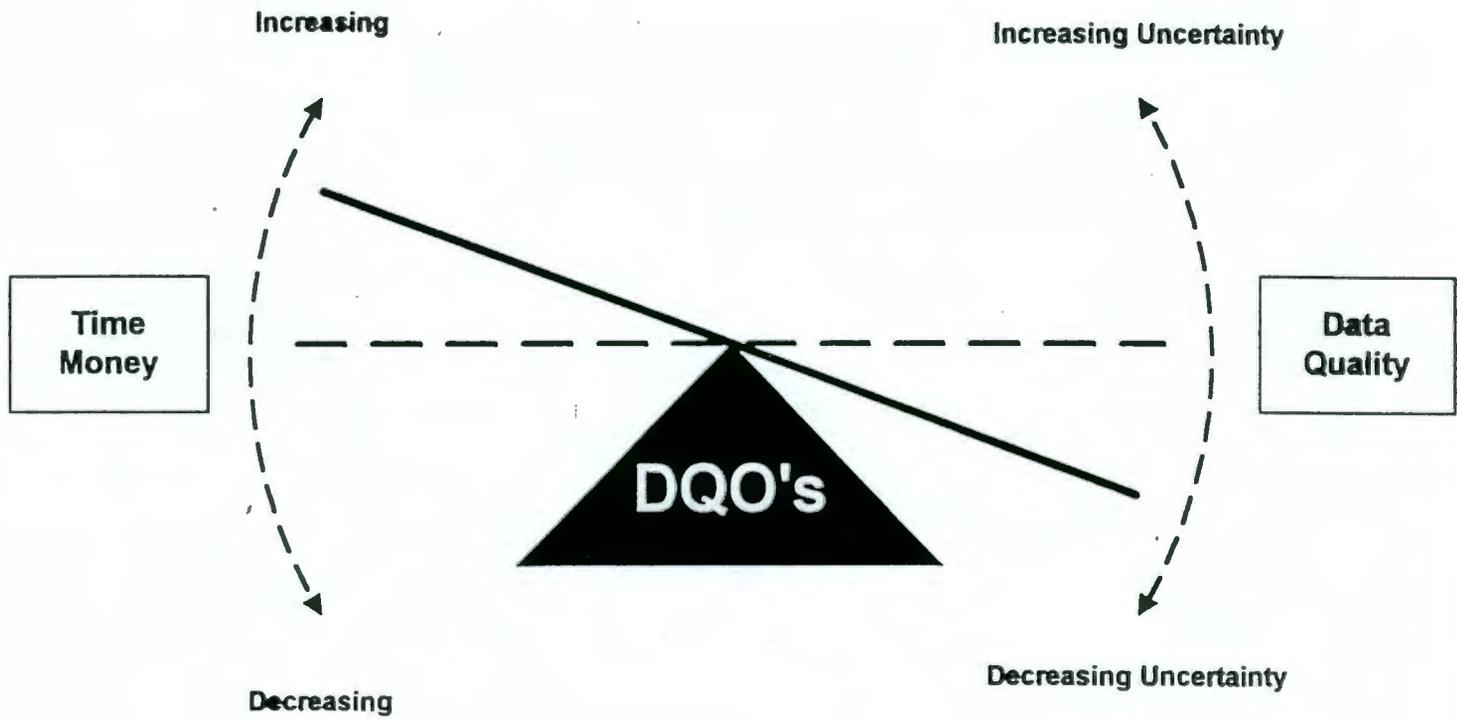
26 Keenan Drive
Peterborough, NH 03458
(603) 924-6852
Fax (603) 924-6346

377-9220

10801 Fox Park
Knoxville, TN 37931
(615) 927-3102
Fax(615) 927-5401

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DQO's Strike a Balance



DISCUSSION TOPICS

- **WHY USE THE PROCESS**
- **DQO PROCESS OVERVIEW**
- **LESSONS LEARNED**
- **MEETING STRATEGY/AGREEMENTS**

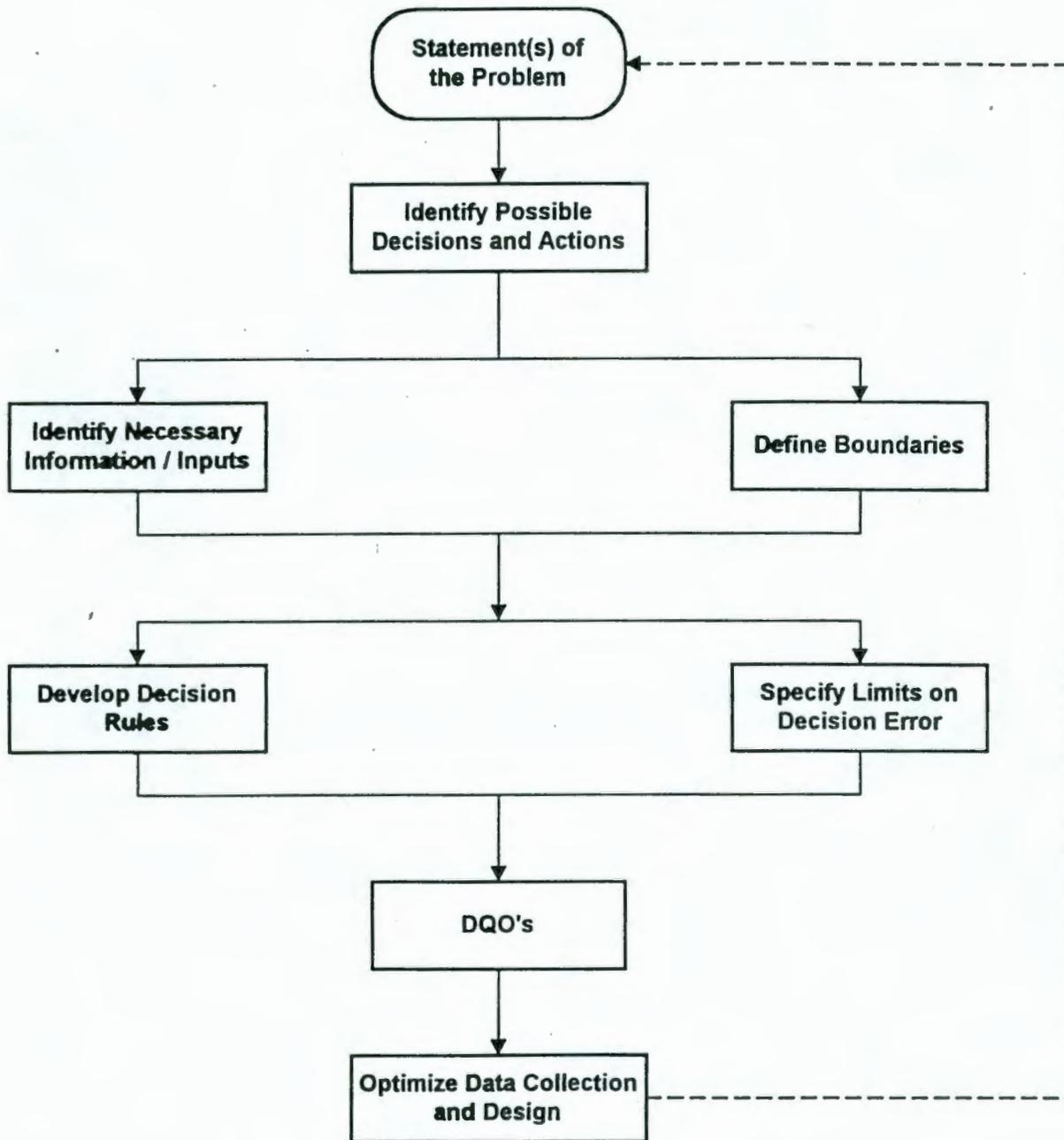
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PARTICIPANTS

- **DOE, ECOLOGY, EPA**
- **PROGRAM/TASK MANAGERS**
- **TECHNICAL SUPPORT**
- **FACILITATOR**

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Data Quality Objective Process



DQO PLANNING PROCESS

1.0 DQO PROCESS OVERVIEW

The following is a brief description of the seven DQO process steps as developed in the "EPA Guidance for Planning for Data Collection in Support of Environmental Decision Making Using the Data Quality Objective Process" (EPA QA/G-4, September 1994). The document reflects the implementation of the process in support of the Emergency Dump Basin Sediment Removal and Treatment. In each step of the process, a summary of the guidance from EPA QA/G-4 is provided prior to the specific results from each step.

1.1 Step 1 - Problem

Problem statements are clearly written after historical knowledge and data are compiled and understood by the stakeholders. Historical data are compiled and summarized and given to the decision makers. The decision makers agree on information which is known, not known and situations which result in problems. Prior to beginning the process, the task lead identifies the team of technical support staff and the appropriate decision makers from DOE, EPA, and Ecology who will perform the planning.

1.2 Step 2 - Decisions

For one or more critical problems, decisions are identified. These decisions result in actions which will correct the problem. Decisions may be technical or administrative.

1.3 Step 3 - Inputs

The inputs are the data and information necessary to make the project decisions. Prior to completing the process the quality, and quantity of data required are agreed upon by the stakeholders. A description of how the data will be used in the decision is agreed upon by the stakeholders. This assures that no unnecessary data are requested.

1.4 Step 4 - Boundaries

The spatial and time boundaries associated with the decision(s) are specified. The boundaries may be physical, practical, or have agreed upon characteristics. Large areas should be subdivided depending on characteristics. For example each cylinder of grouted sediment will be tested and decisions made from each test. An example of a time boundary is the time required for grouted material to solidify prior to testing or storage.

1.5 Step 5 - Decision Rules/Logic

Decision rules are the criteria upon which decisions will be based. These may be stated as "If..then" statements or presented in logic diagrams. The essential requirements are that the

situation be identified followed by the associated action which should occur. For example, "If the average of three measurements of lead in the grout exceeds 5 mg/l, then the waste will be disposed as a hazardous waste." If measurements are made, the logic should contain the parameter, the mode of comparison (i.e. average) and the resulting action. Logic should be complete by describing actions which occur if the limits are met or are exceeded.

1.6 Step 6 - Decision Uncertainty

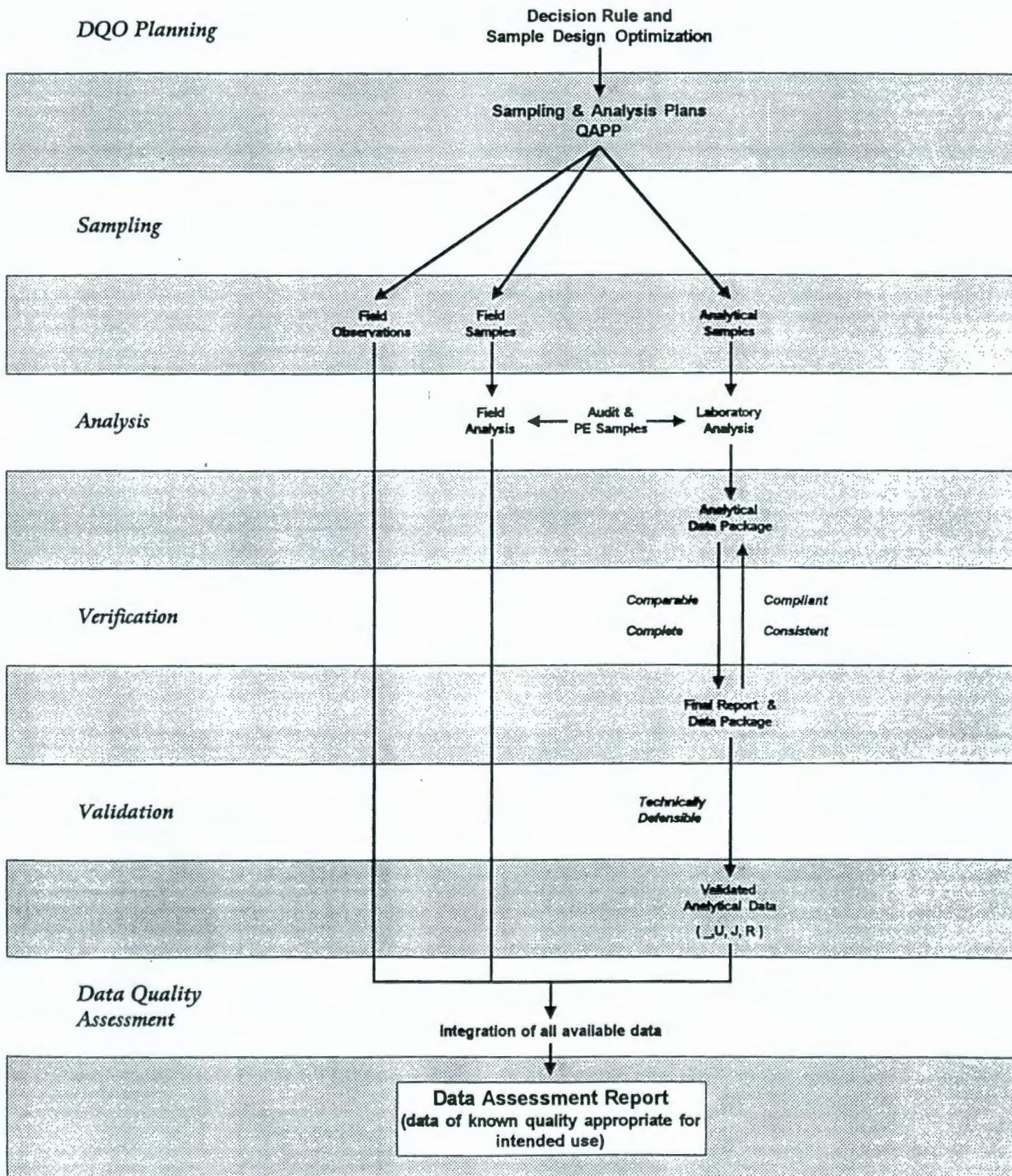
The decision makers must agree on the acceptable probability of making an incorrect decision. In order to assess the acceptable probability, the consequences of making an incorrect decision at various concentrations should be understood. Decision error probabilities are based on the:

- number of samples,
- variance or standard deviation,
- level of false positives and negatives, and
- action, risk or regulatory level

1.7 Step 7 - Sampling and Analysis

The data collection activity can be optimized using the above information. The inputs, number of samples to achieve a given decision certainty, and action levels are defined. Quality constraints are specified. Using this information, the technical team develop and document the sampling and analysis plan. The decision makers agree upon the resulting plan.

Processes for Collection and Use of Environmental Data



LESSONS LEARNED

- **SMALL GROUPS MAKE DECISIONS**
- **INTERVIEWS WITH FACILITATOR GIVE PERSPECTIVE**
- **DECISIONS SHOULD BE BASED ON TECHNICAL LOGIC**
- **DATA MUST BE COMPILED**
- **REGULATORY INFORMATION MUST BE COMPILED**

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ATTENDEES COMMITMENTS

- DO NOT SEND THE SECOND STRING!
- DO OUR HOMEWORK.
- REVIEW MEETING INFORMATION AND MINUTES PRIOR TO ATTENDANCE.
- KEEP MEETINGS SHORT AND FOCUSED.
- FAIR HEARING FOR ALL PARTIES.
- NOTIFY FACILITATOR IF ADDITIONAL TECHNICAL SUPPORT STAFF WILL ATTEND.
BRIEF THESE ATTENDEES PRIOR TO MEETING.

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Attachment 6

**324 REC/HLV
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**October 18, 1995
4:00 p.m. to 5:00 p.m.**

High Level Vault Sump Verification Test

HIGH LEVEL VAULT SUMP VERIFICATION TEST

BACKGROUND

On September 7, 1995, water totaling 16.3 gallons (5.65") accumulated in the high level vault sump of the 324 Building which set off the sump alarm. Instrumentation on the HLV tanks indicated there had not been any release from the tanks. A review was conducted to identify possible sources of the water and it was concluded that the water resulted from recent REC airlock decontamination activities. Based on this review, the water was allowed to evaporate and by October 5 the level had decreased to 3 gallons (0.38").

The REC airlock is equipped with a pipe trench along the west end. This pipe trench serves as a collection point for water during decontamination activities conducted in the airlock. Various transfer lines between the REC and the HLV travel through a 12-inch pipe which runs from the airlock pipe trench to the HLV and is seal welded at each end. The pipe slopes down toward the HLV to prevent any possibility of liquid from the HLV flowing into the airlock. The 12-inch pipe was suspected of being the pathway for the water which had accumulated in the HLV sump.

APPROACH

In order to determine if the water in the HLV sump originated from the REC airlock, water would be added to the airlock at a controlled rate and the water level in the pipe trench and HLV sump would be recorded. The information gathered would provide data on the origin of the HLV water and if the REC airlock was the source, it would identify controls necessary to prevent additional water from being introduced to the HLV sump.

The test would be conducted in conjunction with REC airlock decontamination activities to minimize water usage in the airlock.

RESULTS

On October 5, the initial water levels¹ prior to testing for the pipe trench and HLV sump were 27.32 inches and 0.38 inches, respectively. Decontamination activities were initiated which added water to the pipe trench. When the level in the pipe trench reached 28.62 inches, the level in the HLV sump began to rise. Water addition continued until the liquid level in the pipe trench reached 28.77 inches. After the water addition to the pipe trench stopped, the pipe trench water level steadily decreased until it reached 27.85 inches. When the pipe trench reached this level, the rate of increase in the HLV sump

¹The manometers used to record water levels are referenced to the air pressure in the 324 Building cask handling area. Fluctuations in air pressure caused by activities such as opening doors or wind outside the building result in minor fluctuations in the level readings. As a result of this, all water values should be considered as approximate.

gradually slowed and completely stopped six (6) hours later. The final HLV sump level was 9.51 inches.

The total volume of water added to the pipe trench was 84 gallons. The volume of water required to bring the pipe trench level from 27.32 inches to 27.85 inches is 44.0 gallons. The volume of water required to bring the HLV sump from 0.38 inches to 9.51 inches is 32.5 gallons.

CONCLUSION

The pipe trench water level at which water began to accumulate in the HLV during the test was consistent with the level recorded during the September 7 decontamination activities (27.85 vs. 27.8 inches). During the test, of the 84 gallons of water used, 76.5 gallons were accounted for in the pipe trench and HLV sump (44 gallons and 32.5 gallons respectively). Based on the percent error (± 6 gallons) in the instruments used to record the water levels and the water remaining in the REC airlock which did not drain to the pipe trench, the 76.5 gallons are within the margin of error for the accounting of all of the water used during the test. These results have led to the conclusion that the water which had accumulated in the HLV sump on September 7 resulted from REC airlock decontamination activities.

Based on these results, administrative limits will be established which prevent additional water from accumulating in the HLV sump. It is expected to take approximately two $\frac{1}{2}$ months for the water in the HLV sump to evaporate. During the evaporation period, the sump alarm set point will be periodically lowered such that it remains just above the decreasing liquid level.